WORKSHOP

Using remote sensing to monitor nitrogen stress and yield in alfalfa (Medicago sativa L.)

Imaging spectroscopy is an established, non-destructive, method for estimating alfalfa yield and monitoring crop nutrient status. Our goal was to utilize unmanned aerial vehicle (UAV)-based hyperspectral sensors for germplasm screening of non-dormant alfalfa under two contrasting nitrogen levels (0 vs 30 kg/ha per harvest) for biomass yield and persistence in Florida. We collected ground-based and airborne sensors for high-throughput phenotyping and developed genomic prediction models by leveraging genomic resources in alfalfa developed by the breeding insight project. We will present the image processing pipeline for nitrogen/abiotic stress detection using hyperspectral sensors.

*This workshop is a product of an AG2PI seed grant.

Presenters:

Dr. Anju Biswas is a post-Doctoral fellow participant at USDA vegetable lab in Charleston, SC. She completed her Ph.D. in Agronomy from Forage breeding and genomics lab at the University of Florida, where she specialized in plant breeding utilizing phenomics, genomics, and crop growth modeling.

Dr. Esteban Rios is an Assistant Professor in Forage Breeding and Genetics in the Agronomy Department at the University of Florida. His specialization in plant breeding and genetics, quantitative genetics, and forage production are the foundation of his research program to improve yield, nutritive value, abiotic and biotic stress tolerance in forage species.

May 23, 2023
10:00 AM - 12:00 PM
(Central Time, UTC−5)

Purpose: Demonstrate an image processing pipeline for nitrogen/abiotic stress detection.

Register for this Zoom virtual workshop:
https://tinyurl.com/AG2PI-w21

Upon registration, you will receive a confirmation email with information about joining the meeting.

A recording will be available at a later date at: www.ag2pi.org.

Registration is not required to view the recording.

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